

SAWS KNIVES TOOLS

MANUFACTURED BY

C. A. HILES & CO.

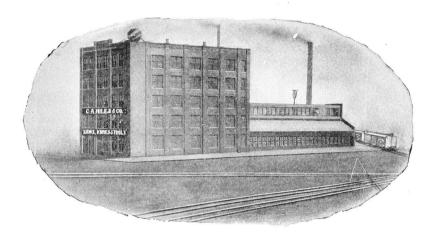
Fourteenth Street and Western Ave. CHICAGO, ILL.



# C. A. HILES & CO.

(Incorporated)

14th Street and Western Avenue CHICAGO, ILL.



MANUFACTURERS OF

Circular Wood Saws

Band Saws

Butchers' Saws and Butchers'
Machine Knives

Circular Saws for Cutting Iron and Steel

Machine Knives for all Purposes

Melting Ladles

Ice Tools

Tempering and Annealing

### Terms of Warranty

VERY Saw bearing our brand is guaranteed free from flaws and seams. If found defective in either of these points the saw may be returned, and if on examination saw proves to be at fault it will be repaired without charge, or a new one given in exchange if received within 30 days from date of purchase. The use of a punch in gumming saws is certain to distort the blade and is liable to cause cracks; filing the gullets of the teeth to sharp corners frequently produces the same result, especially in frosty weather. Our warranty does not cover saws broken from either of these causes.

### Terms

• Orders from parties unknown to us must be accompanied with cash or good commercial reference.

Remittance should be by Draft on Chicago or New York, P. O. Money Order or Registered Letter. Bills unpaid by 20th proximo, subject to sight draft.

 $\P$  Send full shipping directions to prevent delay and expense.

■ All prices are f.o.b. Chicago.

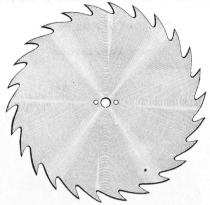
■ Boards and cases charged at cost.

# Miscellaneous Work

Many of our friends know us only as Saw Makers. We make to order all kinds of Springs, Tools, and anything that can be made from sheet steel. We are also prepared to do forging of all kinds. Tempering and annealing work solicited. Our facilities are first-class. We will be glad to furnish estimates.

All agreements are contingent upon strikes, accidents, fires and other causes unavoidable or beyond our control.

# Solid Tooth Circular Saws



Improved Temper and Patent Ground. Best Cast Steel

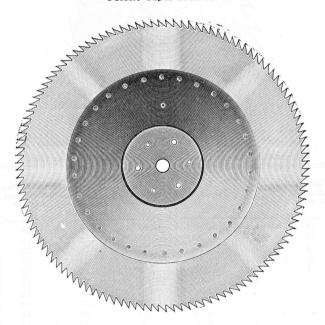
Diameter, inches	Thickness (Stub's Eng- lish gauge)	Size of hole, inch	Price, Each	Extra for each additional gauge (heavier)	(grinding or bev-	if rip saw	Extra for setting and sharpening if cross-cut saw
4	19	3	\$1.10	\$0.03	\$0.14	\$0.25	\$0.35
5	19	3 4	1.30	.04	.16	.28	.40
6	18		1.55	.05	.18	.30	.45
7	18	34 34 756 756	1.85	.06	.20	.33	.50
8	18	7 8	2.20	.08	.22	.35	.55
9	17	7 8	2.75	.10	.25	.40	.60
10	16	1	3.30	.12	.28	.45	.65
11	16	1	3.80	.14	.30	.48	.70
12	15	1	4.15	.17	.35	.50	.75
14	15	11	5.00	.21	.40	.60	.85
16	14	11	6.00	.25	.50	.65	.95
18	13	114	7.50	.30	.60	.70	1.05
20	13	1,5	9.00	.35	.70	.80	1.15
22	12	1,5	11.00	.45	.80	.90	1.30
24	11	13	13.00	.55	.90	1.00	1.45
26	11	13	15.00	.65	1.05	1.10	1.60
28	10	11/2	17.00	.80	1.20	1.20	1.75
30	10	1 1/2	19.00	.90	1.30	1.30	1.95
32	10	15	22.00	1.00	1.40	1.40	2.05
34	9	15	25.00	1.20	1.55	1.60	2.35
36	9	15	28.00	1.40	1.70	1.70	2.55
38	9	1 5	31.00	1.75	1.85	1.85	2.75
40	9	2	36.00	2.00	2.00	2.00	2.95
42	8	2	42.00	2.50	2.20		3.15
44	8	2	50.00	3.00	2.40		3.35
46	8	2	60.00	3.50	2.60		3.60
48	8	2	70.00	4.00	2.80		3.80
50	7	2	80.00	4.50	3.00		4.10
52	7	2	90.00	5.00	3.25		4.40
54	7	2	100.00	6.00	3.50		4.70
56	7	2	115.00	7.00	3.75		5.00
58	7	2	130.00	8.00	4.05		5.30
60	6	2	145.00	9.00	4.35		5.60

No extra charge for saws one gauge thicker than list. Circular saws, 42 inches and less diameter, beveled one gauge without extra charge; 44 inches and larger beveled two gauges without extra charge.

## Shingle and Heading Saws

Made of Jessop Steel

Patent Taper Ground



Dian	neter, inche	es	Price	AL.	Diameter, inches	Price
75	30	00	<b>\$</b> 32.00	24	46	\$85.00
	32	0.1	35.00	544	48	100.00
	34	100	38.00	38 1	50	115.00
*	36	200	42.00	net,	52	135.00
	38	Fills.	47.00	1. 1. 1.	54	155.00
	40		53.00	00 - 1	56	175.00
	42	100	65.00	04.1	58	195.00
	44		72.00	67.3	60	215.00

On opposite page are shown cuts of right hand and left hand Shingle Saws. Be careful to give full specifications when ordering Shingle and Heading Saws.

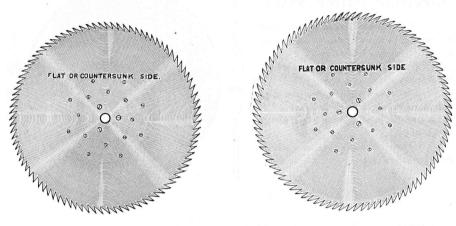
#### Shingle and Heading Saw Flanges

New flanges for Perkins, Challoner or Trevor machines, fitted to new saws. List price, per inch diameter, \$1.50.

Flanges other than above, special price.

Fitting old flange to new saw, each \$2.00 net.

#### Shingle Saws



When ordering Shingle Saws, give the following directions plainly: Diameter in inches, thickness or gauge at center, thickness or gauge at rim; diameter of flange. Send a full size sketch or pattern of holes, and samples of screw by which to drill and countersink saw. If you have a flange, send it to have holes drilled in saw to fit. If you wish us to furnish a new flange, send full and correct sketch of diameter, thickness, holes, etc. State whose make of machine the saw is to run upon, number of teeth, flat or countersunk side (right or left hand) and mark on countersunk side of sketch the direction in which the teeth run.

### Re-Sawing or Siding Saws

Diameter, inches	Gauge	Price, Each	Diameter, inches	Gauge	Price, Each
16	13 x 17	\$7.50	28	9 x 13	\$20.60
16	12 x 16	7.75	28	9 x 14	21.80
16	11 x 15	8.00	28	8 x 13	22.60
18	12 x 16	9.30	30	9 x 13	22.90
18	11 x 15	9.60	30	9 x 14	24.20
18	12 x 17	9.90	30	8 x 13	25.10
20	12 x 16	11.10	32	9 x 13	26.20
20	11 x 15	11.45	32	9 x 14	27.60
20	12 x 17	11.80	32	8 x 13	28.60
22	11 x 15	13.40	34	9 x 13	29.65
22	10 x 14	13.85	34	8 x 13	31.20
22	11 x 16	14.20	34	8 x 14	32.75
24	10 x 14	15.70	36	8 x 13	34.80
24	9 x 13	16.25	36	8 x 14	36.50
24	10 x 15	16.60	36	7 x 14	39.60
26	10 x 14	18.15	38	8 x 12	36.55
26	9 x 13	18.80	38	8 x 13	38.40
26	10 x 15	19.20	38	7 x 13	42.00

Re-Saw Collars

List price, \$1.00 per inch for each collar.

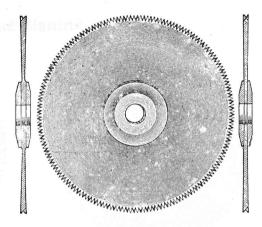
### Circular Miter Saws

These saws are ground to run without set; especially adapted for smooth cutting, such as cabinet and cigar box work.

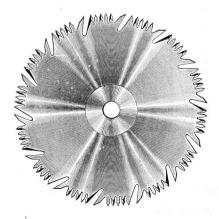
When ordering, give size of center hole, also diameter of collars on mandrel.

Miter saws are stiffer when ground to edge of collar only, like sectional view at left of cut, instead of beveling to the hole as shown at right of cut.

Unless otherwise ordered, saws will be ground to collars only.



Size, inches	Gauge at Edge of Collar	Gauge at Teeth	Extra for EachGaugeHeavier than List	Extra for Each Ad- ditional Gauge Beveling	Price, Each
6	20	17	\$0.08	\$0.18	\$3.50
7	19	16	.09	.20	4.25
8	19	16	.12	.22	4.75
9	18	15	.15	.25	5.50
10	18	15	.18	.28	6.00
11	17	14	.21	.30	6.50
12	17	14	.25	.35	7.00
14	16	13	.32	.40	7.75
16	16	13	.38	.50	8.75
18	15	12	.45	.60	10.25
20	15	12	.53	.70	12.25
22	14	11	.68	.80	15.00
24	14	11	.83	.90	18.00

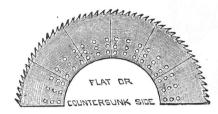


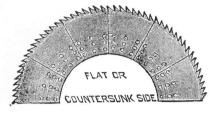
### Circular Miter Saws with Cleaner Tooth

This style of saw can be made for either ripping or cross-cutting. When made for ripping a greater number of cleaner teeth are put in than for cross cutting. It will cut equally as smooth in either ripping or cross cutting.

List prices same as above.

## Veneering and Re-Sawing Segments





Left Hand

Right Hand

		PER FOOT IN DIA	METER OF SAW
Depth, inches	Gauge No.	19 Ga. and Thinner	18 Ga. or Thicke
12	5	\$22.40	\$18.95
	6	21.40	18.10
12	7	20.40	17.25
12	8	19.10	16.15
12		18.45	15.60
12	10	17.80	15.00

Add 5 per cent for each additional inch in depth.

Deduct 5 per cent for each inch under 12 inches in depth.

When ordering segments, give gauge or thickness at butt, gauge or thickness at tooth edge, depth of bevel, diameter of saw that segments are to form, number of segments in saw, depth of segments, number of teeth in each segment, sample of screw by which to drill and countersink, countersunk side, right or left side, and direction in which teeth run.

In ordering for a flange that has been drilled, send a sheet of iron or tin templet or a correct tracing, showing holes and other particulars; or one of the old segments, giving the depth they were originally.

In ordering duplicate plates of our make it is only necessary to give number of old set, which you will find stamped on plate No. 1, directly under our brand. We preserve templets of all orders and can duplicate a set at any time.

### Rates for Repairing Segment Saws

Grinding first and second gauge	\$2.50	per foo	t in diameter
Ginding hist and second gauge.	56	66	66
Grinding each additional gauge	95	**	**
Hammering	.90	**	**
Gumming	2.20	66	**
Retoothing and hammering	2.20		

When sending saws for repairs always mark case plainly with name and address of shipper, for purposes of identification.

### Circular Grooving Saws



Diameter				THICKNES	S		
Inches	1/8 Inch	3/16 Inch	1/4 lnch	5/16 Inch	3/8 Inch	7/16 Inch	1/2 Inch
4	\$1.20	\$1.40	\$1.60	\$2.50	\$3.50	\$4.50	\$5.50
5	1.55	1.75	2.10	3.00	4.00	5.00	6.00
6	1.90	2.20	2.70	3.50	4.50	5.50	6.50
7	2.30	2.70	3.30	4.00	5.00	6.00	7.00
8	2.70	3.20	3.90	4.75	5.75	6.75	7.75
9	3.30	3.75	4.50	5.25	6.25	7.25	8.25
10	3.90	4.50	5.10	6.00	7.00	8.00	9.00
11	4.50	5.10	5.70	6.50	7.50	8.50	9.50
12	5.10	5.70	6.25	7.50	8.50	9.50	10.50
14	6.00	7.00	8.00	9.00	10.50	12.00	13.50
16	7.00	8.00	9.00	10.00	12.00	14.00	16.00
Space of Teeth	1/2 in.	1 in.	1 in.	1 1/4 in.	1 1/2 in.	1 3/4 in.	2 in.

Saws with Less Space or Special Teeth, Extra Price.



# Circular Grooving Saws for the Fischer Box Matcher

These saws are made especially for use on the Fischer Box Matcher, a very popular machine with box factories. They have eight cutting teeth and  $2\frac{1}{2}$  inch hole. We carry in stock sizes  $\frac{1}{16}$  inch to  $\frac{1}{2}$  inch, as listed. Saws of special diameter and thickness made to order only.

Diameter				Т	HICKNES	SS			
Inches	1/16 Inch	3/32 Inch	1/8 Inch	3 16 Inch	1/4 Inch	5/16 Inch	3′8 Inch	7/16 Inch	1/2 Inch
6-1/2	\$2.00	\$2.15	\$2.30	\$2.70	\$3.30	\$4.00	\$5.00	\$6.00	\$7.00

### Rates for Repairing Circular Saws

Breakage in Repairing at the Owner's Risk.

Diameter	Hammering	Gumming and Hammering	Cutting down, Re-toothing and Hammering	First Gauge Grinding	Grinding Each Additional Gauge after the First	Setting and Sharp ening
4	\$0.20	\$0.40	\$0.50	\$0.35	\$0.18	\$0.35
6	.30	.50	.60	.40	,21	.45
8	.40	.65	.75	.50	.25	.55
10	.50	.80	.85	.60	.35	.65
12	,60	.90	1,00	.70	.45	.75
14	70	1.00	1.25	.90	.60	.85
16	.80	1.20	1.45	1.10	.70	95
18	.95	1.40	1.70	1 30	.80	1.05
20	1.10	1.65	1.95	1 45	.90	1.15
22	1.25	1.90	2.15	1.65	1.00	1.30
24	1.40	2.15	2.35	1.80	1.12	1.45
26	1.60	2.10	2.70	2.00	1.25	1.60
28	1.30	2.70	3.05	2.25	1.35	1.75
30	2.00	3.00	3.45	2.55	1.45	1.95
32	2.20	3.30	4.00	2.80	1.55	2.05
34	2.45	3.70	4.60	3.10	1.70	2.35
36	2.75	4.10	5.10	3.35	1.85	2.55
38	3.30	5.00	6.40	3.65	2.00	2.75
40	3.80	6.00	7.75	3.80	2.20	2.95
42	4.40	7.00	9.00	4.00	2.40	3.15
44	5.00	7.85	9.80	4.30	2.70	3.35
46	5.50	8.50	10.60	4.70	3.00	3.60
48	6.00	9.00	11.25	5.10	3.35	3.80
50	6.50	9.75	12.20	5.50	3.6C	4.10
52	7.10	10.70	13.35	6.00	4.00	4.40
54	7.60	11.75	14.70	6.75	4.30	4.70
56	8.20	12.95	15.20	7.40	4.60	5.00
58	9.00	13.95	17.40	8.05	4.85	5.30
60	9 80	14.95	18.60	8.90	5.25	5.60
62	10.60	16.00	20.00	9.70	5.65	6.00
64	11.50	17.10	21.30	19.50	6.05	6.30
66	12.30	18.20	22.60	11.35	6.45	6.60
68	13.10	19.70	24.00	12.10	7.00	6.90
70	14.00	21.25	25.50	12.95	7.55	7.20

When the Saw is ground, add to price for grinding the price of hammering, as in first column; when ground and gummed, add to price of grinding the price of gumming and hammering, as in second column.

In sending us Saws to be repaired, mark on them plainly your name and address, so they can be identified on arrival.

Hammering Inserted Tooth Saws, 25 per cent advance on above list.

### Repairing Circular Saws

We make a specialty of repairing Circular Saws of every kind—including Mill Saws. All Saws for repairs will be returned promptly. Saws that have been through a fire, or that have been badly twisted, are usually worth repairing. If an estimate of cost is desired, ship saws directly to us. Cost of repairs will be furnished on receipt of saws. Mark name and address of shipper on each crate, that we may identify same on arrival.

### Concave Circular Saws





Left Hand

Right Hand

Inches	Gauge	Price, Each	Extra for Each Additiona Gauge
4	16	\$2.20	\$0.05
6	16	2.20	.05
7	15	2.60	.06
8	15	3.10	.08
9	15	3.60	.10
10	. 14	4.50	.13
12	14	5.90	.17
14	13	7.20	.21
16	13	9.00	.25
18	12	10.75	.30
20	12	13.50	.35

All Saws concaved to a smaller circle than 16 inches, extra price.

#### Extra Sizes Made to Order

When ordering Concave Saws give circle to be dished to; also which side is to be dished or concaved, right or left hand, saw running towards you. See cut.

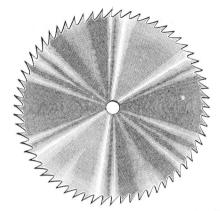
We use steel especially adapted for this class of saws to do the severe work which is required

of them.

The Standard Number of Teeth in Circular Saws

Diameter, inches	Rip	Cross-cut	Diameter, inches	Rip	Cross-cut
4	38 to 40	100 to 120	20	34 to 36	80 to 90
5	38 to 40	100 to 120	22	34 to 36	72 to 80
6	38 to 40	100 to 120	24	34 to 36	72 to 80
7	38 to 40	100 to 120	26	32 to 34	72 to 80
8	38 to 40	100 to 120	28	32 to 34	72 to 80
9	36 to 38	90 to 110	30	32 to 34	80 to 90
10	36 to 38	90 to 110	32	32 to 34	80 to 90
12	36 to 38	90 to 100	34	32 to 34	80 to 90
14	36 to 38	90 to 100	36	34 to 38	80 to 90
16	36 to 38	80 to 90	38	34 to 38	80 to 100
18	34 to 36	80 to 90	40	36 to 40	80 to 100

### Circular Cordwood Saws



We manufacture and carry the following Cordwood Saws in stock. They are strictly first-class in every respect, and are so guaranteed. If found defective, they may be returned.

The following prices are subject to a very liberal trade discount. Write us for net prices and state quantity you will order.

Diameter, Inches	Thickness, Gauge	Price, Each	Extra if Set and Filed Net
20	11	\$ 9.35	\$0.58
20	10	9.70	.58
22	11 -	11.00	.65
22	10	11.45	.65
24	10	13.00	.73
26	10	15.00	.80
28	10	17.00	.88
30	10	19.00	.98
32	10	22.00	1.03

Above prices include crating, F. O. B. Chicago. In ordering specify size of hole.

### Average Speed of Circular Saws

All circular saws are tensioned to run at the speed given herewith (unless otherwise instructed). Saws run at a speed other than as given, will in all probability fail to give entire satisfaction. Also, keep your saws sharp.

Diameter, inches	Revolutions per Minute	Diameter, inches	Revolutions per Minute
8	4,600	40	980
10	3,920	44	890
12	3,260	48	815
16	2,450	52	750
20	1,960	56	700
24	1,630	60	640
28	1.400	64	€00
32	1,225	68	560
36	1,080	72	530

The above table is figured on a rim speed of 10,000 feet per minute.

### Band Saw Blades

Made of Extra Quality Imported Steel. Black or Polished

Width Inches	Gauge	List Prices Not Brazed, Set or Filed Per Foot	Net Prices For Brazing Each
1/8	22	\$0.09	\$0.20
3/16	21	.09	.20
1/4	21	.09	.20
3/8	21	.11	.20
1/2	21	.12	.20
5/8	21	.14	.25
3/4	20	.16	.25
7/8	20	.17	.25
1	20	.19	.30
1 1/8	20	.21	.30
1 1/4	19	.23	.30
1 3/8	19	.26	.40
1 1/2	19	.29	.40
1 3/4	19	.32	.75

Setting and Filing 4 cents per foot extra. Band Saws for Metal add 50 per cent. to list. Band Saws for sawing Bone add 50 per cent. to list.

To get the best results from band saws they must be kept sharp. When setting, teeth should be bent about half way between point and gullet and to be bent parallel with back of saw. This is the best done when saw is held in a vise. Teeth set lower than above usually strain the body of the saw.

Do not try to use a one-inch saw to do scroll saw work, nor a quarter-inch saw to do re-sawing.

#### Silver Solder

Silver Solder for brazing band saws, 90 cents per ounce.

### Band Resaws

Width, inches	Usual Gauge	Price, per Foot	Width, inches	Usual Gauge	Price, per Foot
2 2½ 3 3½	19 to 21 19 to 21 18 to 20 18 to 20	\$0.65 .85 1.05 1.25	4½ 5 5½ 6	18 to 20 18 to 20 18 to 20 18 to 20	\$1.65 1.85 2.05 2.25
4	18 to 20	1.45			

Above prices include joining and fitting ready for use.

### Turning or Chair Webs

# Set and Sharpened Ready for Use

Length, inches	Gauge	Price, per Dozen	Widths, inches
		_	
6	23	\$1.20	3/16 to 1/4
7	22	1.25	3/16 to 1 4
8	22	1.30	3 16 to 1/4
10	22	1.35	3/16 to 1/4
12	21	1.45	3/16 to 1/4
14	21	1.60	3/16 to 5/16
16	20	1.80	3/16 to 5/16

One gauge heavier than above list, no extra charge.

When two gauges heavier than above list, felloe web prices will be charged. Extra width, 10 per cent. additional for each 1/8 inch.

Web Saws, 1/8 inch and narrower over 10 inches long, will be made with wide ends to give strength at the hole. Price 25 per cent. advance.

#### Felloe Webs

Set and Sharpened Ready for Use

Inches	Gauge	Price, per Dozen	· Width, inches
6	19	\$1.30	3/16 to 1/2
7	19	1.35	3, 16 to 1/2
8	19	1.45	3 16 to 1/2
10	18	1.60	3 16 to 1 2
12	18	1.85	1/4 to 1/2
14	17	2.10	1/4 to 1/2
16	17	2.35	1/4 to 5/8

One gauge heavier than the above list, no extra charge; five per cent. extra for each additional gauge to 14 gauge; above 14 gauge, special prices. Extra width, ten per cent. for each one-eighth inch.

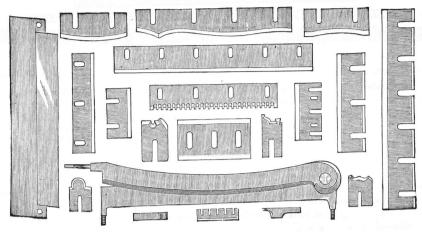
N. B. All Web Saws one-eighth inch and narrower will be made with wide ends in order to give strength at the hole, twenty-five per cent. advance; with pins, 50 cents per dozen additional list.

### Fays Patent Scroll Saws

Inches	Price, per Dozen	Inches	Price, per Dozen	Inches	Price, per Dozer
8	\$1.75	12	\$2.75	18	\$4.00
9	2.00	13	3.00	20	4.50
10	2.25	14	3.25	22	5.00
11	2.50	16	3.50	24	5.50

Fay Webs to 16-inch, over 3/4 inch wide, from 18 to 24 inches, over one inch wide, extra price. We make the above Webs from 13 to 16 Gauge in thickness.

### Machine Knives

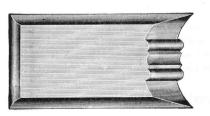


We have facilities for making any style or shape of Machine Knife from the smallest shaper knife to a seventy-inch paper knife, including

Untempered Moulding Blanks
Finished Moulding Knives
Shaper Knives
Groove Bits
Solid Matcher Bits
Sectional Matcher Bits
Beader Bits
Planer and Jointer Knives
Circular Knives

Miter Knives
Lathe Knives
Excelsior Knives
Veneer Knives
Cope Cutters
Cooperage Knives
Leather Knives
Shear Blades
Paper Knives

Besides the above we make Machine Knives for butchers' and packers' use.

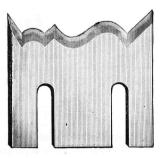


# Shaper Knives

When ordering Shaper Knives send pattern and given bevel of collar. Prices on request and receipt of sketch.

## Moulding Knives

Send pattern with order. Be particular to state thickness of knife wanted. If ordered by a moulding book number state length, width and thickness; also number and size of slots. Prices on request and receipt of sketch.



#### Planer Knives



Planer Knives made by us are guaranteed perfect in material and workmanship, and if found to be otherwise may be returned.

We use an improved method of tempering, and can furnish any degree of hardness desired. A particular temper which may have been found satisfactory, can be duplicated in each succeeding order.

We solicit your business, and can give entire satisfaction.

When Ordering Machine Knives please state the number of Knives wanted, number of Knives in a set, and the exact length, width and thickness; if back bevel is needed and the temper required. When specifying temper state whether to grind only, to file slowly or to file easily, and the purpose for which Knives are to be used. Knives made by us have the order number stamped on them. New Knives can be ordered by this number, or Knives of a different pattern can be ordered with the same temper as used on a given order number.

Always send a drawing or template of Knives wanted. To make sketch of old Knife, lay face down on the paper and mark around to show length of Knife and size and position of slots. Be particular to mark dimensions accurately.

### Special Knives

We make many styles of knives not mentioned here. We can furnish almost any shape or style that can be made of sheet steel, solid steel or welded steel. Send sketch or sample, and we will gladly quote prices.

#### Circular Knives

#### For Cork, Leather, Paper, Cloth and Candy

When ordering give diameter, size of hole, whether beveled on one or both sides, and depth of bevel.

Diameter Inches	Price per inch in Diameter	Gauge	
To 10	\$0.35	14	
11 and 12	.40	12	
13 and 14	.45	11	
15 and 16	.50	10	
17 and 18	.55	9	
19 and 20	.60	9	
21 and 22	.65	8	
23 and 24	.70	8 ′	
25 and 26	.75	7	
27 and 28	.80	7	
29 and 30	.85	6	
31 and 32	.95	6	



On Knives heavier than list we allow the first two gauges and add 5 per cent extra for each additional gauge thereafter.

### Lock Corner Box Cutters



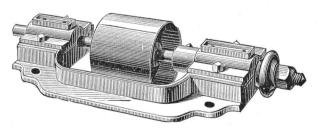


The attention of box makers and others is particularly called to these saws. They are made to run without set. The saws are finished on machinery specially designed for this purpose, are very uniform and will do accurate work. They are easily kept in order. The teeth require filing on top only and will maintain same width of cut till worn out.

All styles of dovetail cutters made to order.

When writing for prices state diameter and thickness of cutter. We also manufacture collars for these cutters.

### Circular Saw Mandrels



Prices Furnished on Request on Receipt of Specifications

When ordering Saw Mandrels state whether yoke or regular style is wanted, and whether common or self-oiling bearings. Send sketch, and give distance from saw to end of mandrel if the pulley is between the bearings. If the pulley is on the end of mandrel, give distance from saw to inside edge of pulley. Also whether the pulley is on the right or left hand side of mandrel when the saw is running toward you.

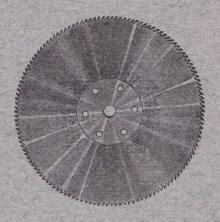
### Our Complete Catalogue

If interested in Metal Saws, Butchers' Saws, Packers' Saws and Knives, Melting Ladles, or Ice Tools, write us. We have a complete catalogue—also special lists.

#### Circular Milling Saws

This list contains prices and specifications for all kinds of milling saws except for the Higley, Newton and Q. & C. machines. Special saws made to order.

Specify with your order the diameter and the thickness of saw blade, also pitch of teeth, size of arbor hole, size and position of pin holes, and diameter of mandrel collars.

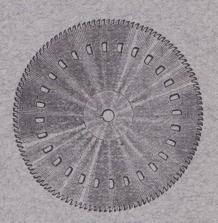


#### Higley Milling Saws

These blades are made to standard patterns, the variation in the saws being in the thickness of the blades and in the pitch of the teeth, which are made of suitable size for the work required. Special attention is called to the blades of extra thickness which we manufacture and which have proven a success on this style of metal sawing machines.

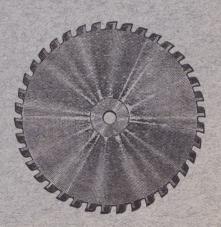
The Higley saw is driven by a gear which engages the slots in the saw blade.

In ordering give the diameter, thickness, style of machine, pitch of teeth wanted and kind of material saw is to cut.

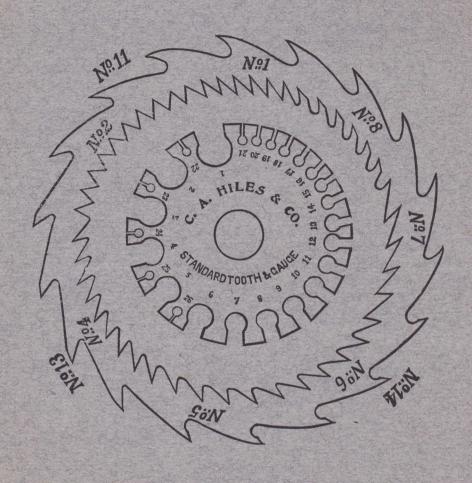


### Q. & C. Bryant Milling Saws

These blades are driven from the periphery by a sprocket. Blades are for both the Cut Off and Universal types of machines. These blades are concave ground for clearance and the teeth are specially ground with side clearance. We can also furnish this style of saw with teeth set, if desired. When ordering saws mention the style of machine, as blades of the same diameter are not always interchangeable. When the teeth become worn too short to engage the sprocket, blades can be regummed by milling new teeth and regrinding. Special saws of any dimensions made to order.



Write for Metal Saw Catalogue.



Stub's Standard English Gauge is Used by all Saw Makers